INDUSTRIAL ASSESSMENTS
Cost Reduction Strategies

AUDITS HIGHLIGHT SAVINGS OPPORTUNITIES

Most Common Recommendations Suggest Likely Ways To Cut Costs

The Department of Energy's Industrial Assessment Centers (IAC's) have performed over 9,500 audits of industrial facilities. For all industry, the most frequently recommended actions are as follows:

1. Use higher-efficiency lamps and/or ballasts.
2. Use most efficient type of electric motors; multiple-speed or adjustable-frequency drives for variable loads.
3. Eliminate leaks in inert gas and compressed air lines/valves.
4. Install compressor air intakes in coolest locations.
5. Use energy-efficient belts and other improved mechanisms.
6. Insulate bare equipment (e.g., pipes and tanks).
7. Analyze flue gas for proper air/fuel ratio.
8. Reduce the pressure of compressed air to the minimum required.
9. Install timers and/or thermostats.
10. If possible, reschedule plant operations or reduce load to avoid peaks.

Industrial Assessment Centers

Industrial Assessment Centers provide free industrial assessments for eligible manufacturers. Upon request by an eligible manufacturing facility, a team of engineering students and faculty from one of 26 university-based centers will visit the facility and recommend measures to help the manufacturer improve productivity, reduce waste, and save energy. Implementation of recommended actions is optional.

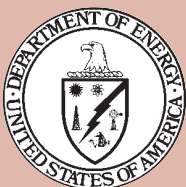### Eligibility for No-Cost IAC Audits

Eligibility criteria are subject to change, so you are encouraged to check the current criteria at www.oit.doe.gov/iac and determine if your plant is eligible for a free IAC audit. If your facility is not eligible at this time, follow the links to find other useful resources.

Database Delivers Results

Previous audit recommendations may help you target opportunities in your own facility. The IAC web site allows you to identify plants similar to yours (by SIC Number) and view the measures that were recommended to them for improving efficiency and productivity. Implementation costs and payback periods on the selected measures are also available. Visit the database at http://oipea-www.rutgers.edu/database/db_f.html.
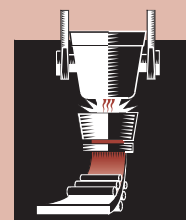
Auditing Your Own Facility

To assist you in conducting an audit of your facility, you may want to download a copy of the *Self-Assessment Workbook for Small Manufacturers*, which is available at http://oipea-www.rutgers.edu/documents/doc_f.html.

Did you know?

Efficiency measures recommended by our IAC audits represent about $55,000 per year in potential savings for each manufacturer.

Audit Results at Steel-Related Facilities

Over 120 IAC audits have uncovered energy and cost-saving opportunities in facilities that produce steel wire, cold drawn steel, and hot rolled steel, and in finishing mills that make steel wire, pipe, and staples. The audits have produced many recommendations for short-term, low-cost actions such as those listed in the table below.

Product	Audit Year	Recommendation	Cost	Annual Savings	Payback (months)
Split Steel	2000	Recycle wood pallets	$0	$30,530	Immediate
		Correct power factor	$23,700	$30,200	10
Steel Pipe	2000	Change oil absorbents	$699	$13,630	1
		Add insulation to heat treating oven	$1,350	$11,000	2
Steel Processing	2000	Agitate pickling tanks	$165,000	$187,954	11
Cold Drawn Steel Tubing	2000	Implement a motor management system	$577	$3,005	2
Steel Brads and Staples	1999	Turn off air nozzle when not needed	$1,110	$15,658	1
Steel Nails	1998	Replace conveyor covers	$8,100	$224,855	1
		Replace air motors with AC motors	$18,900	$29,234	8
Cold Rolled Stripped Carbon	1998	Install high-efficiency motors	$100,440	$72,430	16
Various Shaped Steel Bars	1998	Modify openings in metal heating furnace to reduce energy loss	$9,300	$48,770	2
Steel Balls	1997	Institute a preventive maintenance program	$3,000	$14,951	2
Steel Tubing	1997	Repair compressed air leaks	$800	$22,414	2

For further information, visit our web site or call the OIT Clearinghouse.